

# Demo Set-up

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The SW PWM\_DAC\_HSCMP sets up the PWM module in complementary mode and used Internal Fault (Fault0) to shut down PAMA\_0A and PWMA\_0B. In Normal condition PWMs will be running in complementary mode. 12bit DACA is used to provide reference to one of the input to High Speed Comparator (CMPD) and ANA4 is used to sense feedback signal. Once feedback signal is more than DACA output voltage, Comparator D will generate fault which is taken as Fault0 and by using XABARA routed to PWM0 module. Hence whenever Feedback signal is more than DACA reference, PWMA\_0A and PWMA\_0B will shut down and it will start again when fault disappear. It is targeted at MC56F84789 and its derivatives.

## H/W Setup

The h/w consists of:

1. MAPS-MC56F84000 populated with MC56F84789 device
2. USB cable connected to MAPS OSBDM connector
3. 5V Power supply

Before the demo starts, the HW with OSBDM link needs to be set-up.

## Application SW

The demo s/w is located in a folder MC56F84000\_PWM\_DAC\_HSCMP. The s/w was designed using CodeWarrior CW10.x.

## Development Tools

In order to compile run, load and flash the demo the following s/w is necessary to:

1. Install CodeWarrior\_CW\_MCU\_v10.x and Run the CodeWarrior
2. Drag and drop <MC56F84000\_PWM\_DAC\_HSCMP\project> into the opened CodeWarrior CW10.x
3. Clean(if the project is the first time run in your workspace) and Build the application code target MC56F84789\_Internal\_PFlash\_SDM
4. Connect a USB cable between the PC host and the mbed USB port (CN7 on the MAPS-56F84000 board).
5. Running/debugging loading the code:
  - a. Run As -> Debug Configuration

- b. Set the configuration for debug as download for SDM module.
6. Click Debug
7. Start

## Running the demo

The following steps are necessary:

1. Connect Power Supply
2. Program the application s/w into the MAPS\_84000 board (If the application s/w is not programmed into the MAPS\_84000 board, go to section Application SW).

PWMA\_SM0 in complementary mode, its center aligned PWM signals are available on the pins

1. PWMA\_0B – pin68
2. PWMA\_0A – pin69